

**D. TEN YEAR HISTORY OF ACTUARIAL BALANCE ESTIMATES**

This appendix chronicles the recent history of the primary measure of long-range actuarial status, namely the actuarial balance, as shown in the annual reports for 1983 and later. Actuarial balance is defined in detail in section II.F, Actuarial Estimates. Conceptually, the two basic components of actuarial balance are the summarized income rate and the summarized cost rate. Both rates are expressed as percentages of taxable payroll. For any given period, the actuarial balance is the difference between the present value of tax income for the period, and the present value of the outgo for the period, each divided by the present value of taxable payroll for all years in the period. Also included in the calculation of the actuarial balance are:

1. The amount of the trust fund balances on hand at the beginning of the valuation period, as shown in the reports for 1988 and later, and
2. The present value of a target trust fund balance equal to 100 percent of the amount of annual outgo to be reached and maintained by the end of the valuation period, as shown in the reports for 1991 and later.

It should be noted that the current method of calculating the actuarial balance based on present values, though used prior to the 1973 Annual Report, was not used for the annual reports of 1973-87. Instead, a simpler method that approximates the results of the present-value approach, called the "average-cost" method, was used during that period. Under the average-cost method, the sum of the annual cost rates (which are expressed as percentages of taxable payroll) over the 75-year projection period was divided by the total number of years, 75, to obtain the average cost rate per year. The average income rate was similarly calculated, and the difference between the average income rate and the average cost rate was called the actuarial balance.

In 1973, when the average-cost method was first used, the long-range financing of the program was more nearly on a pay-as-you-go basis. Also, based on the long-range economic and demographic assumptions then being used, the annual rate of growth in taxable payroll was about the same as the annual rate at which the trust funds earned interest. In either situation (i.e., pay-as-you-go financing,

where the annual income rate is the same as the annual cost rate, or an annual rate of growth in taxable payroll equal to the annual interest rate), the average-cost method produces the same result as the present-value method. However, by 1988, neither of these situations still existed.

As a result of legislation enacted in 1977 and in 1983, substantial increases in the trust funds were estimated to occur well into the next century, so that the program was partially "advance funded," rather than being funded on a pay-as-you-go basis. Also, because of declines in long-range fertility rates and average real-wage growth that were assumed in the annual reports over the period 1973-87, the annual rate of growth in taxable earnings assumed for the long range became significantly lower than the assumed interest rate. Therefore, during the period 1973-87, the results of the average-cost method and the present-value method began to diverge, and by 1988 they were quite different. While the average-cost method still accounted for most of the effects of the assumed interest rate, it no longer accounted for all of the interest effects. The present-value method, of course, does account for the full effect of the assumed interest rates. So, in 1988, the present-value method of calculating the actuarial balance was resumed.

A positive actuarial balance indicates that estimated income is more than sufficient to meet estimated trust fund obligations for the period as a whole. A negative actuarial balance indicates that estimated income is insufficient to meet estimated trust fund obligations for the entire period. An actuarial balance of zero indicates that the estimated income exactly matches estimated trust fund obligations for the period.

Table III.D.1 shows the estimated OASDI actuarial balances, as well as the summarized income and cost rates, for the last 10 annual reports (1983-1992), along with the estimates for the current report. The values shown are based on the intermediate alternative II assumptions, or alternative II-B for years prior to 1991.

Appendices

**TABLE III.D.1.—LONG-RANGE ACTUARIAL BALANCES FOR THE OASDI PROGRAM AS SHOWN FOR THE INTERMEDIATE ASSUMPTIONS<sup>1</sup> IN THE TRUSTEES REPORTS ISSUED IN YEARS 1983-1993**

[As a percentage of taxable payroll]

Year of report	Summarized income rate	Summarized cost rate	Actuarial balance	Change from previous year
1983.....	12.87	12.84	+0.02	+1.84
1984.....	12.90	12.95	-.06	-.08
1985.....	12.94	13.35	-.41	-.35
1986.....	12.96	13.40	-.44	-.03
1987.....	12.89	13.51	-.62	-1.18
1988.....	12.94	13.52	-.58	+.04
1989.....	13.02	13.72	-.70	-.13
1990.....	13.04	13.95	-.91	-.21
1991.....	13.11	14.19	-1.08	-.17
1992.....	13.16	14.63	-1.46	-.38
1993.....	13.21	14.67	-1.46	-.00

<sup>1</sup>Values shown are based on the intermediate alternative II assumptions for 1991-93, and on the intermediate alternative II-B assumptions for 1982-90.

For several of the years included in the table, significant legislative changes or definitional changes have affected the estimated actuarial balance. The Social Security Amendments of 1983 accounted for the largest single change in the past 10 years. The actuarial balance of -1.82 for the 1982 report improved to +0.02 for the 1983 report. In 1985, the estimated actuarial balance changed largely because of an adjustment made to the method for estimating the age distribution of immigrants.

Rebenchmarking of the National Income and Product Accounts, and changes in demographic assumptions contributed to the change in actuarial balance for 1987. Various changes in assumptions and methods for the 1988 report had roughly offsetting effects on the actuarial balance. In 1989 and 1990, changes in economic assumptions accounted for most of the changes in the estimated actuarial balance. In 1991, the effect of legislation, changes in economic assumptions, and the introduction of the cost of reaching and maintaining an ending trust fund target combined to produce the change in actuarial balance. In 1992, changes in disability assumptions and the method for projecting average benefit levels accounted for most of the change in the actuarial balance. Changes affecting the actuarial balance shown for the 1993 report are described in section II.F.2 of this report.

**E. ACTUARIAL ANALYSIS OF BENEFIT DISBURSEMENTS  
FROM THE FEDERAL OLD-AGE AND SURVIVORS  
INSURANCE TRUST FUND WITH RESPECT TO  
DISABLED BENEFICIARIES**

*(Required by section 201(c) of the Social Security Act)*

Effective January 1957, monthly benefits have been payable from the OASI Trust Fund to disabled children aged 18 and over of retired and deceased workers in those cases for which the disability began before age 18. The age before which disability is required to have begun was subsequently changed to age 22. Effective February 1968, reduced monthly benefits have been payable from this trust fund to disabled widows and widowers at ages 50 and above. Effective January 1991, the requirements for the disability of the widow or widower were made less restrictive.

On December 31, 1992, about 715,000 persons were receiving monthly benefits from the OASI Trust Fund because of their disabilities or the disabilities of children. This total includes 48,000 mothers and fathers (wives or husbands under age 65 of retired-worker beneficiaries and widows or widowers of deceased insured workers) who met all other qualifying requirements and were receiving unreduced benefits solely because they had disabled-child beneficiaries (or disabled children aged 16 or 17) in their care. Benefits paid from this trust fund to the persons described above totaled \$3,456 million in calendar year 1992. Table III.E.1 shows these and similar figures for selected calendar years during 1960-92, and estimated experience for 1993-2002 based on the intermediate set of assumptions.

## Appendices

**TABLE III.E.1.— BENEFIT DISBURSEMENTS FROM THE OASI TRUST FUND WITH RESPECT TO DISABLED BENEFICIARIES, SELECTED CALENDAR YEARS 1960-1992, AND ESTIMATED FUTURE DISBURSEMENTS DURING 1993-2002 BASED ON INTERMEDIATE ASSUMPTIONS**

[Beneficiaries in thousands; benefit payments in millions]

Calendar year	Disabled beneficiaries, end of year			Amount of benefit payments <sup>1</sup>		
	Total	Children <sup>2</sup>	Widows-widowers	Total	Children <sup>2</sup>	Widows-widowers <sup>3</sup>
<b>Historical data:</b>						
1960.....	117	117	—	\$59	\$59	—
1965.....	214	214	—	134	134	—
1970.....	316	281	36	301	260	\$41
1975.....	435	376	58	664	560	104
1980.....	519	460	59	1,223	1,097	126
1985.....	594	547	47	2,043	1,860	183
1986.....	614	565	49	2,198	2,001	197
1987.....	629	580	49	2,314	2,111	203
1988.....	640	591	49	2,503	2,292	211
1989.....	651	602	49	2,669	2,448	221
1990.....	662	613	49	2,875	2,642	233
1991.....	687	627	61	3,175	2,870	304
1992.....	715	643	72	3,456	3,076	380
<b>Estimates:</b>						
1993.....	736	663	73	3,720	3,295	425
1994.....	755	684	72	3,962	3,527	434
1995.....	776	705	71	4,223	3,778	445
1996.....	798	728	70	4,511	4,051	460
1997.....	823	753	70	4,828	4,350	478
1998.....	847	778	70	5,177	4,680	498
1999.....	872	803	69	5,562	5,044	518
2000.....	897	829	68	5,984	5,445	539
2001.....	921	855	67	6,434	5,877	557
2002.....	946	881	65	6,906	6,337	569

<sup>1</sup>Beginning in 1966, includes payments for vocational rehabilitation services.

<sup>2</sup>Also includes certain mothers and fathers (see text).

<sup>3</sup>In 1983 and prior years, reflects the offsetting effect of lower benefits payable to disabled widows and widowers who continue to receive benefits after attaining age 60 (62, for disabled widowers, prior to 1973) as compared to the higher nondisabled widow's and widower's benefits that would otherwise be payable. In 1984 and later years, only disabled widows and widowers aged 50-59 are included because disabled widows and widowers aged 60-64 would be eligible for the same benefit as a nondisabled aged widow, therefore, they are not receiving benefits solely because of a disability.

Total benefit payments from the OASI Trust Fund with respect to disabled beneficiaries are estimated to increase from \$3,720 million in calendar year 1993 to \$6,906 million in calendar year 2002, based on alternative II.

In calendar year 1992, benefit payments (including expenditures for vocational rehabilitation services) with respect to disabled persons from the OASI Trust Fund and from the DI Trust Fund (including payments from the latter fund to all children and spouses of disabled-worker beneficiaries) totaled \$34,580 million, of which \$3,456 million, or 10.0 percent, represented payments from the OASI Trust Fund. These and similar figures for selected calendar years during 1960-92 and estimates for calendar years 1993-2002 are presented

*OASI Expenditures for Disabled*

in table III.E.2.

**TABLE III.E.2.—BENEFIT DISBURSEMENTS UNDER THE OASDI PROGRAM WITH RESPECT TO DISABLED BENEFICIARIES, BY TRUST FUND, SELECTED CALENDAR YEARS 1960-1992, AND ESTIMATED FUTURE DISBURSEMENTS DURING 1993-2002 BASED ON INTERMEDIATE ASSUMPTIONS**

[Amounts in millions]

Calendar year	Total <sup>1</sup>	OASI Trust Fund		
		DI Trust Fund <sup>2</sup>	Amount <sup>3</sup>	Percentage of total
<b>Historical data:</b>				
1960.....	\$627	\$568	\$59	9.4
1965.....	1,707	1,573	134	7.9
1970.....	3,386	3,085	301	8.9
1975.....	9,169	8,505	664	7.2
1980.....	16,738	15,515	1,223	7.3
1985.....	20,879	18,836	2,043	9.8
1986.....	22,054	19,856	2,198	10.0
1987.....	22,841	20,527	2,314	10.1
1988.....	24,211	21,708	2,503	10.3
1989.....	25,581	22,911	2,669	10.4
1990.....	27,710	24,835	2,875	10.4
1991.....	30,872	27,698	3,175	10.3
1992.....	34,580	31,124	3,456	10.0
<b>Estimates:</b>				
1993.....	38,150	34,431	3,720	9.8
1994.....	41,893	37,931	3,962	9.5
1995.....	45,765	41,542	4,223	9.2
1996.....	49,890	45,379	4,511	9.0
1997.....	54,425	49,597	4,828	8.9
1998.....	59,183	54,006	5,177	8.7
1999.....	64,255	58,693	5,562	8.7
2000.....	69,653	63,669	5,984	8.6
2001.....	75,430	68,996	6,434	8.5
2002.....	81,621	74,715	6,906	8.5

<sup>1</sup>Beginning in 1966, includes payments for vocational rehabilitation services.

<sup>2</sup>Benefit payments to disabled workers and their children and spouses.

<sup>3</sup>Benefit payments to disabled children aged 18 and over, to certain mothers and fathers (see text), and to disabled widows and widowers (see footnote 3, table III.E.1).

## F. FEDERAL REGISTER NOTICE

### DEPARTMENT OF HEALTH AND HUMAN SERVICES

#### Office of the Secretary

#### 1993 Cost-of-Living Increase and Other Determinations

AGENCY: Social Security Administration, HHS.

ACTION: Notice.

**SUMMARY:**The Secretary has determined —

(1) A 3.0 percent cost-of-living increase in Social Security benefits under title II, effective for December 1992;

(2) An increase in the Federal Supplemental Security Income (SSI) monthly benefit amounts under title XVI for 1993 to \$434 for an eligible individual, \$652 for an eligible individual with an eligible spouse, and \$217 for an essential person;

(3) The average of the total wages for 1991 to be \$21,811.60;

(4) The Old-Age, Survivors, and Disability Insurance (OASDI) contribution and benefit base to be \$57,600 for remuneration paid in 1993 and self-employment income earned in taxable years beginning in 1993;

(5) The Hospital Insurance contribution base to be \$135,000 for remuneration paid in 1993 and self-employment income earned in taxable years beginning in 1993;

(6) The monthly exempt amounts under the Social Security retirement earnings test for taxable years ending in calendar year 1993 to be \$880 for beneficiaries age 65 through 69 and \$640 for beneficiaries under age 65;

(7) The dollar amounts ("bend points") used in the benefit formula for workers who become eligible for benefits in 1993 and in the formula for computing maximum family benefits;

(8) The amount of earnings a person must have to be credited with a quarter of coverage in 1993 to be \$590;

(9) The "old-law" contribution and benefit base to be \$42,900 for 1993; and

(10) The OASDI fund ratio to be 96.4 percent for 1992.

**FOR FURTHER INFORMATION CONTACT:** Jeffrey L. Kunkel, Office of the Actuary, Social Security Administration, 6401 Security Boulevard, Baltimore, MD 21235, (410) 965-3013. A summary of the information in this announcement is available in a recorded message by telephoning (410) 965-3053. This telephone message will be updated to reflect changes to the cost-of-living benefit increase and other determinations.

**SUPPLEMENTARY INFORMATION:** The Secretary is required by the Social Security Act (the Act) to publish within 45 days after the close of the third calendar quarter of 1992 the benefit increase percentage and the revised table of "special minimum" benefits (section 215(i)(2)(D)). Also, the Sec-

retary is required to publish before November 1 the average of the total wages for 1991 (section 215(i)(2)(C)(ii)) and the OASDI fund ratio for 1992 (section 215(i)(2)(C)(ii)). Finally, the Secretary is required to publish on or before November 1 the OASDI contribution and benefit base for 1993 (section 230(a)), the amount of earnings required to be credited with a quarter of coverage in 1993 (section 213(d)(2)), the monthly exempt amounts under the Social Security retirement earnings test for 1993 (section 203(f)(8)(A)), the formula for computing a primary insurance amount for workers who first become eligible for benefits or die in 1993 (section 215(a)(1)(D)), and the formula for computing the maximum amount of benefits payable to the family of a worker who first becomes eligible for old-age benefits or dies in 1993 (section 203(a)(2)(C)).

#### Cost-of-Living Increases

**General.** The cost-of-living increase is 3.0 percent for benefits under titles II and XVI of the Act.

Under title II, OASDI benefits will increase by 3.0 percent beginning with the December 1992 benefits, which are payable on December 31, 1992. This increase is based on the authority contained in section 215(i) of the Act (42 U.S.C. 415(i)).

Under title XVI, Federal SSI payment levels will also increase by 3.0 percent effective for payments made for the month of January 1993 but paid on December 31, 1992. This is based on the authority contained in section 1617 of the Act (42 U.S.C. 1382f). The percentage increase effective January 1993 is the same as the title II percentage increase and the annual payment amount is rounded, when not a multiple of \$12, to the next lower multiple of \$12.

**Automatic Benefit Increase Computation.** Under section 215(i) of the Act, the third calendar quarter of 1992 is a cost-of-living computation quarter for all the purposes of the Act. The Secretary is, therefore, required to increase benefits, effective with December 1992, for individuals entitled under section 227 or 228 of the Act, to increase primary insurance amounts of all other individuals entitled under title II of the Act, and to increase maximum benefits payable to a family. For December 1992, the benefit increase is the percentage increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers from the third quarter of 1991 through the third quarter of 1992.

Section 215(i)(1) of the Act provides that the Consumer Price Index for a cost-of-living computation quarter shall be the arithmetic mean of this index for the 3 months in that quarter. The Department of Labor's Consumer Price Index for Urban Wage Earners and Clerical Workers for each month in the quarter ending September 30, 1991, was: for July 1991, 134.3; for August 1991, 134.6; and for September 1991, 135.2. The arithmetic mean for this calendar quarter is 134.7 (after rounding to the

nearest 0.1). The corresponding Consumer Price Index for each month in the quarter ending September 30, 1992, was: for July 1992, 138.4; for August 1992, 138.8; and for September 1992, 139.1. The arithmetic mean for this calendar quarter is 138.8. Thus, because the Consumer Price Index for the calendar quarter ending September 30, 1992, exceeds that for the calendar quarter ending September 30, 1991 by 3.0 percent, a cost-of-living benefit increase of 3.0 percent is effective for benefits under title II of the Act beginning December 1992.

**Title II Benefit Amounts.** In accordance with section 215(i) of the Act, in the case of insured workers and family members for whom eligibility for benefits (i.e., the worker's attainment of age 62, or disability or death before age 62) occurred before 1993, benefits will increase by 3.0 percent beginning with benefits for December 1992 which are payable on December 31, 1992. In the case of first eligibility after 1992, the 3.0 percent increase will not apply.

For eligibility after 1978, benefits are generally determined by a benefit formula provided by the Social Security Amendments of 1977 (Pub. L. 95-216), as described later in this notice.

For eligibility before 1979, benefits are determined by means of a benefit table. In accordance with section 215(i)(4) of the Act, the primary insurance amounts and the maximum family benefits shown in this table are revised by (1) increasing by 3.0 percent the corresponding amounts established by the last cost-of-living

increase and the last extension of the benefit table made under section 215(i)(4) (to reflect the increase in the OASDI contribution and benefit base for 1992); and (2) by extending the table to reflect the higher monthly wage and related benefit amounts now possible under the increased contribution and benefit base for 1993, as described later in this notice. A copy of this table may be obtained by writing to: Social Security Administration, Office of Public Inquiries, 4100 Annex, Baltimore, MD 21235.

Section 215(i)(2)(D) of the Act also requires that, when the Secretary determines an automatic increase in Social Security benefits, the Secretary shall publish in the FEDERAL REGISTER a revision of the range of the primary insurance amounts and corresponding maximum family benefits based on the dollar amount and other provisions described in section 215(a)(1)(C)(i). These benefits are referred to as "special minimum" benefits and are payable to certain individuals with long periods of relatively low earnings. To qualify for such benefits, an individual must have at least 11 "years of coverage." To earn a year of coverage for purposes of the special minimum, a person must earn at least a certain proportion (25 percent for years before 1991, and 15 percent for years after 1990) of the "old-law" contribution and benefit base. In accordance with section 215(a)(1)(C)(i), the table below shows the revised range of primary insurance amounts and corresponding maximum family benefit amounts after the 3.0 percent benefit increase.

## Appendices

### SPECIAL MINIMUM PRIMARY INSURANCE AMOUNTS AND MAXIMUM FAMILY BENEFITS

Primary insurance amount payable for Dec. 1991	No. of years required minimum earnings level	Primary insurance amount payable for Dec. 1992	Maximum family benefit payable for Dec. 1992
\$23.80	11	\$24.50	\$36.90
47.50	12	48.90	73.80
71.60	13	73.70	111.00
95.50	14	98.30	147.70
119.40	15	122.90	184.40
143.30	16	147.50	221.80
167.20	17	172.20	258.70
191.20	18	196.90	295.60
215.10	19	221.50	332.50
238.90	20	246.00	369.30
263.10	21	270.90	406.60
286.80	22	295.40	443.40
310.90	23	320.20	480.90
334.80	24	344.80	517.70
358.60	25	369.30	554.30
382.80	26	394.20	591.90
406.70	27	418.90	628.70
430.40	28	443.30	665.40
454.30	29	467.90	702.60
478.20	30	492.50	739.30

Section 227 of the Act provides flat-rate benefits to a worker who became age 72 before 1969 and was not insured under the usual requirements, and to his or her spouse or surviving spouse. Section 228 of the Act provides similar benefits at age 72 for certain uninsured persons. The current monthly benefit amount of \$173.60 for an individual under sections 227 and 228 of the Act is increased by 3.0 percent to obtain the new amount of \$178.80. The present monthly benefit amount of \$86.90 for a spouse under section 227 is increased by 3.0 percent to \$89.50.

**Title XVI Benefit Amounts.** In accordance with section 1617 of the Act, Federal SSI benefit amounts for the aged, blind, and disabled are increased by 3.0 percent effective January 1993. Therefore, the yearly Federal SSI benefit amounts of \$5,064 for an eligible individual, \$7,596 for an eligible individual with an eligible spouse, and \$2,532 for an essential person, which became effective January 1992, are increased, effective January 1993, to \$5,208, \$7,824, and \$2,604, respectively, after rounding. The corresponding monthly amounts for 1993 are determined by dividing the yearly amounts by 12, giving \$434, \$652, and \$217, respectively. The monthly amount is reduced by subtracting monthly countable income. In the case of an eligible individual with an eligible spouse,

the amount payable is further divided equally between the two spouses.

#### Averages of the Total Wages for 1991

**General.** Under various provisions of the Act, several amounts are scheduled to increase automatically for 1993. These include (1) the OASDI contribution and benefit base, (2) the Hospital Insurance (HI) contribution base, (3) the retirement test exempt amounts, (4) the dollar amounts, or "bend points," in the primary insurance amount and maximum family benefit formulas, (5) the amount of earnings required for a worker to be credited with a quarter of coverage, and (6) the "old law" contribution and benefit base (as determined under section 230 of the Act as in effect before the 1977 amendments). These amounts are based on the increase in the average of the total wages.

The Omnibus Budget Reconciliation Act of 1989 required that the OASDI contribution and benefit bases (including the "old law" bases) be increased using a "transitional rule" for years 1990, 1991, and 1992. (The HI contribution base for 1992 was similarly determined as a result of later legislation.) The transitional rule required that a deemed average wage, rather than the average of the total wages, be used in updating these amounts. The transitional rule is no longer in effect and these contribution bases are now based on the increase in the average of the total wages, as noted above. The deemed average wage is no longer needed or determined.

**Computation.** The determination of the average wage figure for 1991 is based on the 1990 average wage figure of \$21,027.98 announced in the FEDERAL REGISTER on October 25, 1991 (56 FR 55325), along with the percentage increase in average wages from 1990 to 1991 measured by annual wage data tabulated by the Social Security Administration (SSA). The wage data tabulated by SSA include, for the first time, contributions to deferred compensation plans, as required by section 209(k) of the Act. The average amounts of wages calculated directly from this data were \$20,172.11 and \$20,923.84 for 1990 and 1991, respectively. To determine an average wage figure for 1991 at a level that is consistent with the series of average wages for 1951 through 1977 (published December 29, 1978, at 43 FR 61016), we multiplied the 1990 average wage figure of \$21,027.98 by the percentage increase in average wages from 1990 to 1991 (based on SSA-tabulated wage data) as follows (with the result rounded to the nearest cent):

**Amount.** Average wage for 1991 =  
 $\$21,027.98 \times \$20,923.84 + \$20,172.11 =$

\$21,811.60. Therefore, the average wage for 1991 is determined to be \$21,811.60.

**OASDI Contribution and Benefit Base**

*General.* The OASDI contribution and benefit base is \$57,600 for remuneration paid in 1993 and self-employment income earned in taxable years beginning in 1993.

The OASDI contribution and benefit base serves two purposes:

(a) It is the maximum annual amount of earnings on which OASDI taxes are paid. The OASDI tax rate for remuneration paid in 1993 is set by statute at 6.2 percent for employees and employers, each. The OASDI tax rate for self-employment income earned in taxable years beginning in 1993 is 12.4 percent.

(b) It is the maximum annual amount used in determining a person's OASDI benefits.

*Computation.* Section 230(c) of the Act provides a table with the contribution and benefit base for each year 1978, 1979, 1980, and 1981. For years after 1981, section 230(b) of the Act contains a formula for determining the OASDI contribution and benefit base. Under the prescribed formula, the base for 1993 shall be equal to the 1992 base of \$55,500 multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar year 1991 to (2) the average amount of those wages for calendar year 1990. Section 230(b) further provides that if the amount so determined is not a multiple of \$300, it shall be rounded to the nearest multiple of \$300.

*Average Wages.* The average wage for calendar year 1990 was previously determined to be \$21,027.98. The average wage for calendar year 1991 has been determined to be \$21,811.60, as stated above.

*Amount.* The ratio of the average wage for 1991, \$21,811.60, compared to the average wage for 1990, \$21,027.98, is 1.0372656. Multiplying the 1992 OASDI contribution and benefit base amount of \$55,500 by the ratio of 1.0372656 produces the amount of \$57,568.24 which must then be rounded to \$57,600. Accordingly, the OASDI contribution and benefit base is determined to be \$57,600 for 1993.

**Hospital Insurance Contribution Base**

*General.* The HI contribution base is \$135,000 for remuneration paid in 1993 and self-employment income earned in taxable years beginning in 1993. The HI base is the maximum annual amount of earnings on which HI taxes are paid. The HI tax rate for remuneration paid in 1993 is set by statute at 1.45 percent for employees and employers, each. The HI tax rate for

self-employment income earned in taxable years beginning in 1993 is 2.9 percent.

*Computation.* The HI contribution base for 1993 shall be equal to the 1992 base of \$130,200 multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar year 1991 to (2) the average amount of those wages for calendar year 1990. If the amount so determined is not a multiple of \$300, it shall be rounded to the nearest multiple of \$300.

*Average Wages.* The average wage for calendar year 1990 was previously determined to be \$21,027.98. The average wage for calendar year 1991 has been determined to be \$21,811.60, as stated above.

*Amount.* The ratio of the average wage for 1991, \$21,811.60, compared to the average wage for 1990, \$21,027.98, is 1.0372656. Multiplying the 1992 HI contribution base amount of \$130,200 by the ratio of 1.0372656 produces the amount of \$135,051.98 which must then be rounded to \$135,000. Accordingly, the HI contribution base is determined to be \$135,000 for 1993.

**Retirement Earnings Test Exempt Amounts**

*General.* Social Security benefits are withheld when a beneficiary under age 70 has earnings in excess of the retirement earnings test exempt amount. A formula for determining the monthly exempt amounts is provided in section 203(f)(8)(B) of the Act. The 1992 monthly exempt amounts were determined by the formula to be \$850 for beneficiaries aged 65-69 and \$620 for beneficiaries under age 65. Thus, the annual exempt amounts for 1992 were set at \$10,200 and \$7,440, respectively. For beneficiaries aged 65-69, \$1 in benefits is withheld for every \$3 of earnings in excess of the annual exempt amount. For beneficiaries under age 65, \$1 in benefits is withheld for every \$2 of earnings in excess of the annual exempt amount.

*Computation.* Under the formula provided in section 203(f)(8)(B) of the Act, each monthly exempt amount for 1993 shall be the corresponding 1992 monthly exempt amount multiplied by the ratio of (1) the average amount, per employee, of the total wages for calendar year 1991 to (2) the average amount of those wages for calendar year 1990. The section further provides that if the amount so determined is not a multiple of \$10, it shall be rounded to the nearest multiple of \$10.

*Average Wages.* The average wage for 1991, as determined above, is \$21,811.60. Therefore, the ratio of the average wages for 1991, \$21,811.60, compared to that for 1990, \$21,027.98, is 1.0372656.

*Exempt Amount for Beneficiaries Aged 65 Through 69.* Multiplying the 1992

## Appendices

retirement earnings test monthly exempt amount of \$850 by the ratio of 1.0372656 produces the amount of \$881.68. This must then be rounded to \$880. The retirement earnings test monthly exempt amount for beneficiaries aged 65 through 69 is determined to be \$880 for 1993. The corresponding retirement earnings test annual exempt amount for these beneficiaries is \$10,560.

*Exempt Amount for Beneficiaries Under Age 65.* Multiplying the 1992 retirement earnings test monthly exempt amount of \$620 by the ratio 1.0372656 produces the amount of \$643.10. This must then be rounded to \$640. The retirement earnings test monthly exempt amount for beneficiaries under age 65 is thus determined to be \$640 for 1993. The corresponding retirement earnings test annual exempt amount for these beneficiaries is \$7,680.

### Computing Benefits After 1978

*General.* The Social Security Amendments of 1977 provided a method for computing benefits which generally applies when a worker first becomes eligible for benefits after 1978. This method uses the worker's "average indexed monthly earnings" to compute the primary insurance amount. The computation formula is adjusted automatically each year to reflect changes in general wage levels.

A worker's earnings are adjusted, or "indexed," to reflect the change in general wage levels that occurred during the worker's years of employment. Such indexation ensures that a worker's future benefits reflect the general rise in the standard of living that occurs during his or her working lifetime. A certain number of years of earnings are needed to compute the average indexed monthly earnings. After the number of years is determined, those years with the highest indexed earnings are chosen, the indexed earnings are summed, and the total amount is divided by the total number of months in those years. The resulting average amount is then rounded down to the next lower dollar amount. The result is the average indexed monthly earnings.

For example, to compute the average indexed monthly earnings for a worker attaining age 62, becoming disabled before age 62, or dying before attaining age 62, in 1993, the average of the total wages for 1991, \$21,811.60, is divided by the average of the total wages for each year prior to 1991 in which the worker had earnings. The actual wages and self-employment income, as defined in section 211(b) of the Act and credited for each year, is multiplied by the corresponding ratio to obtain the worker's indexed earnings for each year before 1991.

Any earnings in 1991 or later are considered at face value, without indexing. The average indexed monthly earnings is then computed and used to determine the worker's primary insurance amount for 1993.

### Computing the Primary Insurance

*Amount.* The primary insurance amount is the sum of three separate percentages of portions of the average indexed monthly earnings. In 1979 (the first year the formula was in effect), these portions were the first \$180, the amount between \$180 and \$1,085, and the amount over \$1,085. The dollar amounts in the formula which govern the portions of the average indexed monthly earnings are frequently referred to as the "bend points" of the formula. Thus, the bend points for 1979 were \$180 and \$1,085.

The bend points for 1993 are obtained by multiplying the corresponding 1979 bend-point amounts by the ratio between the average of the total wages for 1991, \$21,811.60, and for 1977, \$9,779.44. These results are then rounded to the nearest dollar. For 1993, the ratio is 2.2303527. Multiplying the 1979 amounts of \$180 and \$1,085 by 2.2303527 produces the amounts of \$401.46 and \$2,419.93. These must then be rounded to \$401 and \$2,420. Accordingly, the portions of the average indexed monthly earnings to be used in 1993 are determined to be the first \$401, the amount between \$401 and \$2,420, and the amount over \$2,420.

Consequently, for individuals who first become eligible for old-age insurance benefits or disability insurance benefits in 1993, or who die in 1993 before becoming eligible for benefits, we will compute their primary insurance amount by adding the following:

- (a) 90 percent of the first \$401 of their average indexed monthly earnings, plus
- (b) 32 percent of the average indexed monthly earnings over \$401 and through \$2,420, plus
- (c) 15 percent of the average indexed monthly earnings over \$2,420.

This amount is then rounded to the next lower multiple of \$.10 if it is not already a multiple of \$.10. This formula and the adjustments we have described are contained in section 215(a) of the Act (42 U.S.C. 415(a)).

### Maximum Benefits Payable to a Family

*General.* The 1977 amendments continued the long established policy of limiting the total monthly benefits which a worker's family may receive based on his or her primary insurance amount. Those amendments also continued the then existing relationship between maximum family benefits and primary insurance amounts but did change the method of

computing the maximum amount of benefits which may be paid to a worker's family. The Social Security Disability Amendments of 1980 (Pub. L. 96-265) established a new formula for computing the maximum benefits payable to the family of a disabled worker. This new formula is applied to the family benefits of workers who first become entitled to disability insurance benefits after June 30, 1980, and who first become eligible for these benefits after 1978. The new formula was explained in a final rule published in the FEDERAL REGISTER on May 8, 1981, at 46 FR 25601. For disabled workers initially entitled to disability benefits before July 1980, or whose disability began before 1979, the family maximum payable is computed the same as the old-age and survivor family maximum.

Computing the Old-Age and Survivor Family Maximum. The formula used to compute the family maximum is similar to that used to compute the primary insurance amount. It involves computing the sum of four separate percentages of portions of the worker's primary insurance amount. In 1979, these portions were the first \$230, the amount between \$230 and \$332, the amount between \$332 and \$433, and the amount over \$433. The dollar amounts in the formula which govern the portions of the primary insurance amount are frequently referred to as the "bend points" of the family-maximum formula. Thus, the bend points for 1979 were \$230, \$332, and \$433.

The bend points for 1993 are obtained by multiplying the corresponding 1979 bend-point amounts by the ratio between the average of the total wages for 1991, \$21,811.60, and the average for 1977, \$9,779.44. This amount is then rounded to the nearest dollar. For 1993, the ratio is 2.2303527. Multiplying the amounts of \$230, \$332, and \$433 by 2.2303527 produces the amounts of \$512.98, \$740.48, and \$965.74. These amounts are then rounded to \$513, \$740, and \$966. Accordingly, the portions of the primary insurance amounts to be used in 1993 are determined to be the first \$513, the amount between \$513 and \$740, the amount between \$740 and \$966, and the amount over \$966.

Consequently, for the family of a worker who becomes age 62 or dies in 1993 before age 62, the total amount of benefits payable to them will be computed so that it does not exceed:

- (a) 150 percent of the first \$513 of the worker's primary insurance amount, plus
- (b) 272 percent of the worker's primary insurance amount over \$513 through \$740, plus
- (c) 134 percent of the worker's primary

insurance amount over \$740 through \$966, plus

(d) 175 percent of the worker's primary insurance amount over \$966.

This amount is then rounded to the next lower multiple of \$.10 if it is not already a multiple of \$.10. This formula and the adjustments we have described are contained in section 203(a) of the Act (42 U.S.C. 403(a)).

#### **Quarter of Coverage Amount**

*General.* The 1993 amount of earnings required for a quarter of coverage is \$590. A quarter of coverage is the basic unit for determining whether a worker is insured under the Social Security program. For years before 1978, an individual generally was credited with a quarter of coverage for each quarter in which wages of \$50 or more were paid, or an individual was credited with 4 quarters of coverage for every taxable year in which \$400 or more of self-employment income was earned. Beginning in 1978, wages generally are no longer reported on a quarterly basis; instead, annual reports are made. With the change to annual reporting, section 352(b) of the Social Security Amendments of 1977 (Pub. L. 95-216) amended section 213(d) of the Act to provide that a quarter of coverage would be credited for each \$250 of an individual's total wages and self-employment income for calendar year 1978 (up to a maximum of 4 quarters of coverage for the year).

*Computation.* Under the prescribed formula, the quarter of coverage amount for 1993 shall be equal to the 1978 amount of \$250 multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar year 1991 to (2) the average amount of those wages reported for calendar year 1976. The section further provides that if the amount so determined is not a multiple of \$10, it shall be rounded to the nearest multiple of \$10.

*Average Wages.* The average wage for calendar year 1976 was previously determined to be \$9,226.48. This was published in the FEDERAL REGISTER on December 29, 1978, at 43 FR 61016. The average wage for calendar year 1991 has been determined to be \$21,811.60 as stated above.

*Quarter of Coverage Amount.* The ratio of the average wage for 1991, \$21,811.60, compared to that for 1976, \$9,226.48, is 2.3640218. Multiplying the 1978 quarter of coverage amount of \$250 by the ratio of 2.3640218 produces the amount of \$591.01, which must then be rounded to \$590. Accordingly, the quarter of coverage amount is determined to be \$590 for 1993.

#### **"Old-Law" Contribution and Benefit Base**

*General.* The 1993 "old-law" contribution

## Appendices

and benefit base is \$42,900. This is the base that would have been effective under the Act without the enactment of the 1977 amendments. The base is computed under section 230(b) of the Act as it read prior to the 1977 amendments.

The "old-law" contribution and benefit base is used by:

(a) the Railroad Retirement program to determine certain tax liabilities and tier II benefits payable under that program to supplement the tier I payments which correspond to basic Social Security benefits,

(b) the Pension Benefit Guaranty Corporation to determine the maximum amount of pension guaranteed under the Employee Retirement Income Security Act (as stated in section 230(d) of the Act),

(c) Social Security to determine a year of coverage in computing the special minimum benefit, as described earlier, and

(d) Social Security to determine a year of coverage (equal to 25 percent of the "old-law" base for this purpose only) in computing benefits for persons who are also eligible to receive pensions based on employment not covered under section 210 of the Act.

**Computation.** The base is computed using the automatic adjustment formula in section 230(b) of the Act as it read prior to the enactment of the 1977 amendments. Under the formula, the "old-law" contribution and benefit base shall be the "old-law" 1992 base multiplied by the ratio of (1) the average amount, per employee, of total wages for calendar year 1991 to (2) the average amount of those wages for calendar year 1990. If the amount so determined is not a multiple of \$300, it shall be rounded to the nearest multiple of \$300.

**Average Wages.** The average wage for calendar year 1990 was previously determined to be \$21,027.98. The average wage for calendar year 1991 has been determined to be \$21,811.60, as stated above.

**Amount.** The ratio of the average wage for 1991, \$21,811.60, compared to the average wage for 1990, \$21,027.98, is 1.0372656. Multiplying the 1992 "old-law" contribution and benefit base amount of \$41,400 by the ratio of 1.0372656 produces the amount of \$42,942.80 which must then be rounded to \$42,900. Accordingly, the "old-law" contribution and benefit base is determined to be \$42,900 for 1993.

### OASDI Fund Ratio

**General.** Section 215(i) of the Act provides for automatic cost-of-living increases in OASDI benefit amounts. This section also includes a "stabilizer" provision that can limit the automatic OASDI benefit increase under certain circumstances. If the combined

assets of the OASI and DI Trust Funds, as a percentage of annual expenditures, are below a specified threshold, the automatic benefit increase is equal to the lesser of (1) the increase in average wages or (2) the increase in prices. The threshold specified for the OASDI fund ratio is 20.0 percent for benefit increases for December of 1989 and later. The law also provides for subsequent "catch-up" benefit increases for beneficiaries whose previous benefit increases were affected by this provision. "Catch-up" benefit increases can occur only when trust fund assets exceed 32.0 percent of annual expenditures.

**Computation.** Section 215(i) specifies the computation and application of the OASDI fund ratio. The OASDI fund ratio for 1992 is the ratio of (1) the combined assets of the OASI and DI Trust Funds at the beginning of 1992 to (2) the estimated expenditures of the OASI and DI Trust Funds during 1992, excluding transfer payments between the OASI and DI Trust Funds, and reducing any transfers to the Railroad Retirement Account by any transfers from that account into either trust fund.

**Ratio.** The combined assets of the OASI and DI Trust Funds at the beginning of 1992 equaled \$280,747 million, and the expenditures are estimated to be \$291,172 million. Thus, the OASDI fund ratio for 1992 is 96.4 percent, which exceeds the applicable threshold of 20.0 percent. Therefore, the stabilizer provision does not affect the benefit increase for December 1992. Although the OASDI fund ratio exceeds the 32.0-percent threshold for potential "catch-up" benefit increases, no past benefit increase has been reduced under the stabilizer provision. Thus, no "catch-up" benefit increase is required.

(Catalog of Federal Domestic Assistance: Program Nos. 93.800 Medicare-Hospital Insurance; 93.802 Social Security-Disability Insurance; 93.803 Social Security-Retirement Insurance; 93.804 Social Security-Special Benefits for Persons Aged 72 and Over; 93.805 Social Security-Survivors Insurance; 93.807 Supplemental Security Income.)

Dated: October 20, 1992

Louis W. Sullivan,

Secretary of Health and Human Services

[ FR Doc. 92-25943 Filed 10-26-92; 8:45am]

BILLING CODE 4190-29-M

This material was published in the Federal Register on October 27, 1992, at 57 FR 48619; the version shown herein includes certain corrections which will be published in a forthcoming edition of the Federal Register.

## G. GLOSSARY

**Actuarial balance.** The difference between the summarized income rate and the summarized cost rate over a given valuation period.

**Actuarial deficit.** A negative actuarial balance.

**Adjusted gross income—AGI.** Amount of income potentially subject to Federal income taxation, before consideration of exemptions and deductions.

**Administrative expenses.** Expenses incurred by the Department of Health and Human Services and the Department of the Treasury in administering the OASDI program and the provisions of the Internal Revenue Code relating to the collection of contributions. Such administrative expenses are paid from the OASI and DI Trust Funds.

**Advance tax transfers.** Amounts representing the estimated total OASDI tax contributions for a given month. From May 1983 through November 1990, such amounts were credited to the OASI and DI Trust Funds at the beginning of each month. Reimbursements were made from the trust funds to the general fund of the Treasury for the associated loss of interest. Advance tax transfers are no longer made unless needed in order to pay benefits.

**Advisory Council on Social Security.** Under the Social Security Act, an Advisory Council is appointed every 4 years to study and review the financial status of the OASDI and Medicare programs. The most recent Advisory Council was appointed in 1989 and issued its reports in 1991. Under section 706 of the Social Security Act, the next Advisory council is to be named by the end of calendar year 1993.

**Alternatives I, II, or III.** See "Assumptions."

**Annual balance.** The difference between the income rate and the cost rate in a given year.

**Assets.** Treasury notes and bonds, other securities guaranteed by the Federal Government, certain Federally sponsored agency obligations, and cash, held by the trust funds for investment purposes.

**Assumptions.** Values relating to future trends in certain factors which affect growth of the trust funds. Demographic assumptions include fertility, mortality, net immigration, marriage, divorce, retirement patterns, disability incidence and termination rates, and changes in the labor force. Economic assumptions include unemployment, average earnings, inflation, interest rates, and productivity. Three sets of economic assumptions are presented in the Trustees Report—

- (1) Alternative I is characterized as an "optimistic" set—it assumes relatively rapid economic growth, low inflation, and favorable

## Appendices

(from the standpoint of program financing) demographic conditions.

- (2) Alternative II is the "intermediate" set of assumptions, with "best estimates" of future economic and demographic conditions.
- (3) Alternative III is more "pessimistic," with slow economic growth, more rapid inflation, and financially disadvantageous demographic conditions.

See tables II.D.1 and II.D.2.

**Automatic cost-of-living increase.** The annual increase in benefits, effective for December, reflecting the increase in the cost of living. The benefit increase equals the percentage increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers measured from the average over July, August, and September of the preceding year to the average for the same 3 months in the current year. If the increase is less than one-tenth of 1 percent, when rounded, there is no automatic increase for the current year; the increase for the next year would reflect the increase in the cost of living over a 2-year period. See table II.E.2.

**If the "stabilizer provision" applies, the increase may be less than the cost of living.**

**Auxiliary beneficiary.** Monthly benefits payable to a spouse or child of a retired or disabled worker, or to a survivor of a deceased worker.

**Average indexed monthly earnings—AIME.** The amount of earnings used in determining the primary insurance amount (PIA) for most workers who attain age 62, become disabled, or die after 1978. A worker's actual past earnings are adjusted by changes in the "average wage index," in order to bring them up to their approximately equivalent value at the time of retirement or other eligibility for benefits.

**Average wage index.** The average amount of total wages for each year after 1950, including wages in noncovered employment and wages in covered employment without regard to either the OASDI or HI contribution bases. These amounts are used to index the earnings of most workers first becoming eligible for benefits in 1979 or later, and for automatic adjustments in the contribution and benefit base, bend points, earnings test exempt amounts, and other wage-indexed amounts. See tables II.E.1, II.E.2, and III.B.1.

**Award.** An administrative determination that an individual is entitled to receive a specified type of OASDI benefit. Awards can represent not only new entrants to the benefit rolls but also persons already on the rolls who become entitled to a different type of benefit. Awards usually result in the immediate payment of benefits, although payments may be deferred or withheld depending on the individual's particular circumstances.

**Baby boom.** The period from the end of World War II through the mid-1960s marked by unusually high birth rates.

**Bend points.** The dollar amounts defining the AIME or PIA brackets

in the benefit formulas. For the bend points for years 1979 and later, see table II.E.3.

**Beneficiary.** A person who has been awarded benefits on the basis of his or her own or another's earnings record. The benefits may be either in current-payment status or withheld.

**Benefit awards.** See "Awards."

**Benefit payments.** The amounts disbursed for OASI and DI benefits by the Department of the Treasury in specified periods.

**Benefit terminations.** See "Terminations."

**Board of Trustees.** A Board established by the Social Security Act to oversee the financial operations of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund. The Board is composed of five members, three of whom serve automatically by virtue of their positions in the Federal Government: the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The other two members are appointed by the President as public representatives: Stanford G. Ross and David M. Walker are currently serving 4-year terms that began on October 2, 1990. The Commissioner of Social Security serves as Secretary of the Board of Trustees.

**Book value.** A bond's value between its price at purchase and its value at maturity. Book value is calculated as par value plus unamortized premium, if purchased at a price above its par value, or less unamortized discount, if purchased below par.

**COLA.** See "Automatic cost-of-living increase."

**Constant dollars.** One or more financial amounts adjusted by the CPI to a constant year as a reference point.

**Consumer Price Index—CPI.** Relative measure of inflation. In this report, all references to the CPI relate to the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). See table II.D.1.

**Contingency fund ratio.** See "Trust fund ratio."

**Contribution and benefit base.** Annual dollar amount above which earnings in employment covered under the OASDI program are neither taxable nor creditable for benefit computation purposes. (Also referred to as "maximum contribution and benefit base," "annual creditable maximum," "taxable maximum," and "maximum taxable.") See tables II.B.1 and II.E.2. See also, "HI contribution base."

**Contributions.** The amount based on a percent of earnings, up to an annual maximum, that must be paid by—

- (1) employers and employees on wages from employment under the Federal Insurance Contributions Act,
- (2) the self-employed on net earnings from self-employment under the Self-Employed Contributions Act, and
- (3) States on the wages of State and local government employees covered under the Social Security Act through voluntary agreements under section 218 of the Act.

Generally, employers withhold contributions from wages, add an

## *Appendices*

equal amount of contributions, and pay both on a current basis. Also referred to as "taxes."

**Cost-of-living increase.** See "Automatic cost-of-living increase."

**Cost rate.** The cost rate for a year is the ratio of the cost (also called outgo, expenditures, or disbursements) of the program to the taxable payroll for the year. In this context, the outgo is defined to include benefit payments, special monthly payments to certain uninsured persons who have 3 or more quarters of coverage (and whose payments are therefore not reimbursable from the general fund of the Treasury), administrative expenses, net transfers from the trust funds to the Railroad Retirement program under the financial-interchange provisions, and payments for vocational rehabilitation services for disabled beneficiaries; it excludes special monthly payments to certain uninsured persons whose payments are reimbursable from the general fund of the Treasury (as described above), and transfers under the interfund borrowing provisions.

**Covered earnings.** Earnings in employment covered by the OASDI program.

**Covered employment.** All employment and self-employment creditable for Social Security purposes. Almost every kind of employment and self-employment is covered under the program. In a few employment situations, for example, religious orders under a vow of poverty, foreign affiliates of American employers, or State and local governments, coverage must be elected by the employer. However, effective July 1991, coverage is mandatory for State and local employees who are not participating in a public employee retirement system. In a few situations, for example, ministers or self-employed members of certain religious groups, workers can opt out of coverage.

**Covered worker.** A person who has earnings creditable for Social Security purposes on the basis of services for wages in covered employment and/or on the basis of income from covered self-employment.

**Current-cost financing.** See "Pay-as-you-go financing."

**Current dollars.** Amounts expressed in nominal dollars with no adjustment for inflationary changes in the value of the dollar over time.

**Current-payment status.** Status of a beneficiary for whom a benefit is being paid for a given month (with or without deductions, provided the deductions add to less than a full month's benefit). A benefit in current-payment status for a month is usually payable on the third day of the following month.

**Deemed wage credit.** See "Military service wage credits."

**Demographic assumptions.** See "Assumptions."

**Disability.** For Social Security purposes, the inability to engage in substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or to last for a continuous period of not less than 12 months. Special rules apply for workers age 55 or older whose disability is based on blindness.

The law generally requires that a person be disabled continuously

for 5 months before he or she can qualify for a disabled-worker benefit.

**Disability incidence rate.** The proportion of workers in a given year, insured for but not receiving disability benefits, who apply for and are awarded disability benefits.

**Disability Insurance (DI) Trust Fund.** See "Trust fund."

**Disability termination rate.** The proportion of disabled worker beneficiaries in a given year whose disability benefits terminate as a result of the individual's recovery, death, or attainment of normal retirement age.

**Disabled-worker benefit.** A monthly benefit payable to a disabled worker under normal retirement age and insured for disability. Before November 1960, disability benefits were limited to disabled workers aged 50-64.

**Earnings.** Unless otherwise qualified, all wages from employment and net earnings from self-employment, whether or not taxable or covered.

**Earnings test.** The provision requiring the withholding of benefits if beneficiaries under age 70 have earnings in excess of certain exempt amounts. See table II.E.3.

**Economic assumptions.** See "Assumptions."

**Excess wages.** Wages in excess of the contribution and benefit base on which a worker initially pays taxes (usually as a result of working for more than one employer during a year). Employee taxes on excess wages are refunded to affected employees, while the employer taxes are not refunded.

**Federal Insurance Contributions Act—FICA.** Provision authorizing taxes on the wages of employed persons to provide for Retirement, Survivors, and Disability Insurance, and for Hospital Insurance. The tax is paid in equal amounts by workers and their employers.

**Financial interchange.** Provisions of the Railroad Retirement Act providing for transfers between the trust funds and the Social Security Equivalent Benefit Account of the Railroad Retirement program in order to place each trust fund in the same position it would have been in if railroad employment had always been covered under Social Security.

**Fiscal year.** The accounting year of the United States Government. Since 1976, each fiscal year has begun on October 1 of the prior calendar year and ended the following September 30. For example, fiscal year 1993 began October 1, 1992 and will end September 30, 1993.

**Full advance funding.** A financing scheme where taxes or contributions are established to match the full cost of future benefits as these costs are incurred through current service. Such financing methods also provide for amortization over a fixed period of any financial liability that is incurred at the beginning of the program (or subsequent modification) as a result of granting credit for past service.

**General fund of the Treasury.** Funds held by the Treasury of the

## Appendices

United States, other than receipts collected for a specific purpose (such as Social Security) and maintained in a separate account for that purpose.

**General fund reimbursements.** Transfers from the general fund of the Treasury to the trust funds for specific purposes defined in the law, including—

- (1) the costs associated with providing special payments made to uninsured persons who attained age 72 before 1968, and who had fewer than 3 quarters of coverage.
- (2) payments corresponding to the employee-employer taxes on deemed wage credits for military personnel.
- (3) interest on checks which are not negotiated 6 months after the month of issue. (For checks issued before October, 1989, the principal was returned to the trust funds as a general fund reimbursement; since that time, the principal amount is automatically returned to the issuing fund when the check is uncashed after a year.)
- (4) administrative expenses incurred as a result of furnishing information on deferred vested benefits to pension plan participants, as required by the Employee Retirement Income Security Act of 1974 (Public Law 93-406).

**Gross Domestic Product.** The total dollar value of all goods and services produced by labor and property located in the United States, regardless of who supplies the labor or property.

**Gross National Product.** The total dollar value of all goods and services produced by labor and property supplied by United States residents, regardless of the location in which the production occurs.

**HI contribution base.** Annual dollar amount above which earnings in employment covered under the HI program are not taxable. (Also referred to as "maximum contribution base," "taxable maximum," and "maximum taxable.") See table II.E.2.

**Hospital Insurance (HI) Trust Fund.** See "Trust fund."

**Income rate.** Ratio of income from tax revenues on a liability basis (payroll tax contributions and income from the taxation of benefits) to the OASDI taxable payroll for the year.

**Inflation.** An increase in the volume of money and credit relative to available goods, resulting in an increase in the general price level.

**Insured status.** The state or condition of having sufficient quarters of coverage to meet the eligibility requirements for retired-worker or disabled-worker benefits, or to permit the worker's spouse and children or survivors to establish eligibility for benefits in the event of his or her disability, retirement, or death. See "Quarters of coverage."

**Interfund borrowing.** The borrowing of assets by a trust fund (OASI, DI, or HI) from another of the trust funds when the first fund is in danger of exhaustion. Interfund borrowing was permitted by the Social Security Act only during 1982 through 1987; all amounts borrowed were to be repaid prior to the end of 1989. The only exercise of this authority occurred in 1982, when the OASI Trust Fund bor-

rowed assets from the DI and HI Trust Funds. The final repayment of borrowed amounts occurred in 1986.

**Intermediate assumptions.** See "Assumptions."

**Interest.** A payment in exchange for the use of money during a specified period.

**Interest rate.** See "Special public-debt obligation."

**Long range.** The next 75 years. Long-range actuarial estimates are made for this period because it is approximately the maximum remaining lifetime of current Social Security participants.

**Lump-sum death benefit.** A lump sum, generally \$255, payable on the death of a fully or currently insured worker. The lump sum is payable to the surviving spouse of the worker, under most circumstances, or to the worker's children.

**Maximum family benefit.** The maximum monthly amount that can be paid on a worker's earnings record. Whenever the total of the individual monthly benefits payable to all the beneficiaries entitled on one earnings record exceeds the maximum, each dependent's or survivor's benefit is proportionately reduced to bring the total within the maximum. Benefits payable to divorced spouses or surviving divorced spouses are not reduced under the family maximum provision.

**Medicare.** A nationwide, federally administered health insurance program authorized in 1965 to cover the cost of hospitalization, medical care, and some related services for most people over age 65, people receiving Social Security Disability Insurance payments for 2 years, and people with End-Stage Renal Disease. Medicare consists of two separate but coordinated programs— Part A (Hospital Insurance, HI) and Part B (Supplementary Medical Insurance, SMI). All persons entitled to HI are eligible to enroll in the SMI program on a voluntary basis by paying a monthly premium. Health insurance protection is available to Medicare beneficiaries without regard to income.

**Military service wage credits.** Credits recognizing that military personnel receive other cash payments and wages in kind (such as food and shelter) in addition to their basic pay. Noncontributory wage credits of \$160 are provided for each month of active military service from September 16, 1940, through December 31, 1956. For years after 1956, the basic pay of military personnel is covered under the Social Security program on a contributory basis. Noncontributory wage credits of \$300 for each calendar quarter in which a person receives pay for military service from January 1957 through December 1977 are granted in addition to contributory credits for basic pay. Deemed wage credits of \$100 are granted for each \$300 of military wages in years after 1977. (The maximum credits allowed in any calendar year are \$1,200.)

**Normal retirement age.** The age at which a person may first become entitled to unreduced retirement benefits. Currently age 65, but scheduled under present law to increase gradually to 67 for

## Appendices

persons reaching that age in 2027 or later, beginning with an increase to 65 years and 2 months for persons reaching age 65 in 2003. **Old-Age and Survivors Insurance (OASI) Trust Fund.** See "Trust fund."

**Old-law base.** Amount the contribution and benefit base would have been if the discretionary increases in the base under the 1977 amendments had not been enacted. The Social Security Amendments of 1972 provided for automatic annual indexing of the contribution and benefit base. The Social Security Amendments of 1977 provided ad hoc increases to the bases for 1979-81, with subsequent bases updated in accordance with the normal indexing procedure.

**Optimistic assumptions.** See "Assumptions."

**Par value.** The value printed on the face of a bond. For both public and special issues held by the trust funds, par value is also the redemption value at maturity.

**Partial advance funding.** A financing scheme where taxes are scheduled to provide a substantial accumulation of trust fund assets, thereby generating additional interest income to the trust funds and reducing the need for payroll tax increases in periods when costs are relatively high. (Higher general taxes or additional borrowing may be required, however, to support the payment of such interest.) While substantial, the trust fund build-up under partial advance funding is much smaller than it would be with full advance funding.

**Pay-as-you-go financing.** A financing scheme where taxes are scheduled to produce just as much income as required to pay current benefits, with trust fund assets built up only to the extent needed to prevent exhaustion of the fund by random economic fluctuations.

**Payroll taxes.** A tax levied on the gross wages of workers. See tables II.B.1 and III.A.1.

**Pessimistic assumptions.** See "Assumptions."

**Present value.** The equivalent value, at the present time, of a future stream of payments (either income or expenditures). The present value of a future stream of payments may be thought of as the lump-sum amount that, if invested today, together with interest earnings would be just enough to meet each of the payments as they fell due. At the time of the last payment, the invested fund would be exactly zero. For example, a home mortgage of \$100,000 represents the present value at 8 percent interest of future monthly payments of \$714.40 for the next 30 years. Present values are widely used in calculations involving financial transactions over long periods of time to account for the time value of money (interest) and the changing value of the dollar (inflation).

**Primary insurance amount—PIA.** The monthly amount payable to a retired worker who begins to receive benefits at normal retirement age or (generally) to a disabled worker. This amount, which is related to the worker's average monthly wage or average indexed monthly earnings, is also the amount used as a base for computing all types of benefits payable on the basis of one individual's earnings record.

**Primary insurance amount formula.** The mathematical formula

relating the PIA to the AIME for workers who attain age 62, become disabled, or die after 1978. The PIA is equal to the sum of 90 percent of AIME up to the first bend point, plus 32 percent of AIME above the first bend point up to the second bend point, plus 15 percent of AIME in excess of the second bend point. Automatic benefit increases are applied beginning with the year of eligibility. See table II.E.3.

**Quarters of coverage.** Basic unit of measurement for determining insured status. In 1993, a worker receives one quarter of coverage (up to a total of four) for each \$590 of annual covered earnings. The amount of earnings required for a quarter of coverage is subject to annual automatic increases in proportion to increases in average earnings. For amounts applicable for years after 1978, see table II.E.3.

**Railroad retirement.** A Federal insurance program, somewhat similar to Social Security, designed for workers in the railroad industry. The provisions of the Railroad Retirement Act provide for a system of coordination and financial interchange between the Railroad Retirement program and the Social Security program.

**Reallocation of tax rates.** An increase in the tax rate payable to either the OASI or DI Trust Fund, with a corresponding reduction in the rate for the other fund, so that the total OASDI tax rate is not changed.

**Real-wage differential.** The difference between the percentage increases in (1) the average annual wage in covered employment and (2) the average annual Consumer Price Index. See table II.D.1.

**Recession.** A period of adverse economic conditions; in particular, two or more successive calendar quarters of negative growth in either Gross Domestic Product (GDP), or Gross National Product (GNP).

**Retired worker benefit.** A monthly benefit payable to a fully insured retired worker aged 62 or older or to a person entitled under the transitionally insured status provision in the law. Retired-worker benefit data do not include special age-72 benefits.

**Retirement age.** The age at which an individual establishes entitlement to retirement benefits. See also, "Normal retirement age."

**Retirement earnings test.** See "Earnings test."

**Retirement test.** See "Earnings test."

**Self-employment.** Operation of a trade or business by an individual or by a partnership in which an individual is a member.

**Self-Employment Contributions Act—SECA.** Provision authorizing Social Security taxes on the net earnings of most self-employed persons.

**Short range.** The next 10 years. Short-range actuarial estimates are prepared for this period because of the short-range test of financial adequacy. The Social Security Act requires estimates for 5 years; estimates are prepared for an additional 5 years to help clarify trends which are only starting to develop in the mandated first 5-year period.

**Social Security Act.** Provisions of the law governing most operations of the Social Security program. Original Social Security Act is Public Law 74-271, enacted August 14, 1935. With subsequent

amendments, the Social Security Act consists of 20 titles, of which four have been repealed. The Old-Age, Survivors, and Disability Insurance program is authorized by Title II of the Social Security Act.

**Special public-debt obligation.** Securities of the United States Government issued exclusively to the OASI, DI, HI, and SMI Trust Funds and other Federal trust funds. Section 201(d) of the Social Security Act provides that the public-debt obligations issued for purchase by the OASI and DI Trust Funds shall have maturities fixed with due regard for the needs of the funds. The usual practice in the past has been to spread the holdings of special issues, as of each June 30, so that the amounts maturing in each of the next 15 years are approximately equal. Special public-debt obligations are redeemable at par at any time and carry interest rates equivalent to the average yield on all outstanding marketable U.S. securities not due to mature for at least 4 years. See table II.D.1.

**Stabilizer provision.** Section 215(i)(1)(C) of the Act, which provides that if the combined assets of the OASI and DI Trust Funds, as a percentage of estimated annual expenditures, fall below a specified level, automatic benefit increases will be limited to the lower of the increases in wages or prices. The specified level is 20 percent for benefit increases in 1989 and later.

**Summarized balance.** The difference between the summarized cost rate and the summarized income rate, expressed as a percentage of taxable payroll.

**Summarized cost rate.** The ratio of the present value of expenditures to the present value of the taxable payroll for the years in a given period. This ratio can be used as a measure of the relative level of expenditures during the period in question. For purposes of evaluating the financial adequacy of the program, the summarized cost rate is adjusted to include the cost of reaching and maintaining a "target" trust fund level. Because a trust fund level of about 1 year's expenditures is considered to be an adequate reserve for unforeseen contingencies, the targeted trust fund ratio used in determining summarized cost rates is 100 percent of annual expenditures. Accordingly, the adjusted summarized cost rate is equal to the ratio of (a) the sum of the present value of the outgo during the period plus the present value of the targeted ending trust fund level, to (b) the present value of the taxable payroll during the projection period.

**Summarized income rate.** The ratio of the present value of tax income to the present value of taxable payroll for the years in a given period. This ratio can be used as a measure of the relative level of income during the period in question. For purposes of evaluating the financial adequacy of the program, the summarized income rate is adjusted to include assets on hand at the beginning of the period. Accordingly, the adjusted summarized income rate equals the ratio of (a) the sum of the trust fund balance at the beginning of the period plus the present value of the total income from taxes during the period, to (b) the present value of the taxable payroll for the years in the period.

**Supplemental Security Income—SSI.** A Federally administered

program (often with State supplementation) of cash assistance for needy aged, blind, or disabled persons. SSI is funded through the general fund of the Treasury and administered by the Social Security Administration.

**Supplementary Medical Insurance (SMI) Trust Fund.** See "Trust fund."

**Survivor benefit.** Benefit payable to a survivor of a deceased worker.

**Taxable earnings.** Wages and/or self-employment income, in employment covered by the OASDI and/or HI programs, that is under the applicable annual maximum taxable limit.

**Taxable payroll.** A weighted average of taxable wages and taxable self-employment income. When multiplied by the combined employee-employer tax rate, it yields the total amount of taxes incurred by employees, employers, and the self-employed for work during the period.

**Taxable self-employment income.** Net earnings from self-employment, generally above \$400 and below the annual taxable and creditable maximum amount for a calendar or other taxable year, less any taxable wages in the same taxable year.

**Taxable wages.** See "Taxable earnings."

**Taxation of benefits.** Beginning in 1984, up to one-half of an individual's or a couple's OASDI benefits may be subject to Federal income taxation under certain circumstances. The revenue derived from this provision is allocated to the OASI and DI Trust Funds on the basis of the income taxes paid on the benefits from each fund.

**Taxes.** See "Contributions."

**Termination.** Cessation of payment of a specific type of benefit because the beneficiary is no longer entitled to receive it. For example, benefits might terminate as a result of the death of the beneficiary, the recovery of a disabled beneficiary, or the attainment of age 18 by a child beneficiary. In some cases, the individual may become immediately entitled to another type of benefit (such as the conversion of a disabled worker beneficiary at normal retirement age to a retired worker beneficiary).

**Test of Long-Range Close Actuarial Balance.** Summarized income rates and cost rates are calculated for each of 66 valuation periods within the full 75-year long-range projection period. The first of these periods consists of the next 10 years. Each succeeding period becomes longer by 1 year, culminating with the period consisting of the next 75 years. The long-range test is met if, for each of the 66 valuation periods, the actuarial balance is not less than zero or is negative by, at most, a specified percentage of the summarized cost rate for the same time period. The percentage allowed for a negative actuarial balance is 0 percent for the 10-year period, grading uniformly to 5 percent for the full 75-year period. The criterion for meeting the test is less stringent for the longer periods in recognition of the greater uncertainty associated with estimates for more distant years. The test is applied to OASI and DI separately, as well as

## Appendices

combined, based on the intermediate (alternative II) set of assumptions.

**Test of Short-Range Financial Adequacy.** The conditions required to meet this test are as follows:

- If the trust fund ratio for a fund exceeds 100 percent at the beginning of the projection period, then it must be projected to remain at or above 100 percent throughout the 10-year projection period;
- Alternatively, if the fund ratio is initially less than 100 percent, it must be projected to reach a level of at least 100 percent within 5 years (and not be depleted at any time during this period) and then remain at or above 100 percent throughout the remainder of the 10-year period.

These conditions apply to each trust fund separately, as well as to the combined funds, and are evaluated based on the intermediate (alternative II) set of assumptions.

**Total fertility rate.** The average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, a specified year, and if she were to survive the entire child-bearing period.

**Trust fund.** Separate accounts in the United States Treasury in which are deposited the taxes received under the Federal Insurance Contributions Act, the Self-Employment Contributions Act, contributions resulting from coverage of State and local government employees; any sums received under the financial interchange with the railroad retirement account; voluntary hospital and medical insurance premiums; and transfers of Federal general revenues. Funds not withdrawn for current monthly or service benefits, the financial interchange, and administrative expenses are invested in interest-bearing Federal securities, as required by law; the interest earned is also deposited in the trust funds.

- **Old-Age and Survivors Insurance (OASI).** The trust fund used for paying monthly benefits to retired-worker (old-age) beneficiaries and their spouses and children and to survivors of deceased insured workers.
- **Disability Insurance (DI).** The trust fund used for paying monthly benefits to disabled-worker beneficiaries and their spouses and children and for providing rehabilitation services to the disabled.
- **Hospital Insurance (HI).** The trust fund used for paying part of the costs of inpatient hospital services and related care for aged and disabled individuals who meet the eligibility requirements.
- **Supplementary Medical Insurance (SMI).** The trust fund used for paying part of the costs of physician's services, outpatient hospital services, and other related medical and health services for voluntarily enrolled aged and disabled individuals.

**Trust fund ratio.** A measure of the adequacy of the trust fund level. Defined as the assets at the beginning of the year, including advance tax transfers (if any), expressed as a percentage of the outgo during

the year. The trust fund ratio represents the proportion of a year's outgo which could be paid with the funds available at the beginning of the year.

**Unnegotiated check.** A check which has not been cashed 6 months after the end of the month in which the check was issued. When a check has been outstanding for a year (i) the check is administratively cancelled by the Department of the Treasury and (ii) the issuing trust fund is reimbursed separately for the amount of the check and interest for the period the check was outstanding. The appropriate trust fund also receives an interest adjustment for the time the check was outstanding if it is cashed 6-12 months after the month of issue. If a check is presented for payment after it is administratively cancelled, a replacement check is issued.

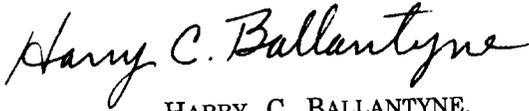
**Valuation period.** A period of years which is considered as a unit for purposes of calculating the financial status of a trust fund.

**Vocational rehabilitation.** Services provided to disabled persons to help enable them to return to gainful employment. Reimbursement from the trust funds for the costs of such services is made only in those cases where the services contributed to the successful rehabilitation of the beneficiaries.

**Year of exhaustion.** The year in which a trust fund would become unable to pay benefits when due because the assets of the fund were exhausted.

**H. STATEMENT OF ACTUARIAL OPINION**

It is my opinion that (1) the techniques and methodology used herein to evaluate the financial and actuarial status of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds are generally accepted within the actuarial profession; and (2) the assumptions used and the resulting actuarial estimates are, in the aggregate, reasonable for the purpose of evaluating the financial and actuarial status of the trust funds, taking into consideration the experience and expectations of the program.



HARRY C. BALLANTYNE,  
*Associate of the Society of Actuaries,  
Member of the American Academy of Actuaries,  
Chief Actuary, Social Security Administration*